

REMARKS

This paper responds to the Office Action mailed on May 20, 2005.

Claims 1 and 13 are amended, claims 21-112 are canceled without disclaimer or prejudice, and claims 113-134 are added. As a result, claims 1-20 and 113-134 are now pending in this application.

Reservation of the Right to Swear Behind References

Applicant maintains the right to swear behind any references which are cited in a rejection under 35 U.S.C. §§102(a), 102(e), 103/102(a), and 103/102(e). Statements distinguishing the claimed subject matter over the cited references are not to be interpreted as admissions that the references are prior art.

§102 Rejection of the Claims

Claims 1-3, 13, 15, and 16 were rejected under 35 U.S.C. § 102(e) for anticipation by Babich et al. (U.S. Patent No. 5,830,332).

Applicant respectfully traverses.

Independent claim 1 recites, among other things, "a substrate including at least one alignment mark" and "a masking structure formed over the device structure, the masking structure including an amorphous carbon layer, wherein the amorphous carbon layer is transparent in visible light range for improving a reading of the alignment mark in the visible light range". Babich et al. appears to teach an amorphous carbon layer for use as a patterned absorber for ultraviolet (UV) and deep ultraviolet (DUV). Applicant is unable to find in Babich et al. "a substrate including at least one alignment mark" and "a masking structure formed over the device structure, the masking structure including an amorphous carbon layer, wherein the amorphous carbon layer is transparent in visible light range for improving a reading of the alignment mark in the visible light range". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 1.

Dependent claims 2-12 depend from claim 1 and recite the things of claim 1. Thus, Applicant believes that claims 2-12 are not anticipated by Babich et al. for at least the reasons

presented above regarding claim 1 and for the additional things recited in claims 2-12.

Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 2-12.

Independent claim 13 recites, "an amorphous carbon layer formed over a substrate, the substrate including at least one alignment mark, wherein the amorphous carbon layer is transparent to radiation having wavelengths between 400 nanometers and 700 nanometers for improving a reading of alignment marks in the substrate in the wavelengths between 400 nanometers and 700 nanometers". As previously presented above in claim 1, Babich et al. appears to teach an amorphous carbon layer for use as a patterned absorber for ultraviolet (UV) and deep ultraviolet (DUV). Applicant is unable to find in Babich et al. "an amorphous carbon layer formed over a substrate, the substrate including at least one alignment mark, wherein the amorphous carbon layer is transparent to radiation having wavelengths between 400 nanometers and 700 nanometers for improving a reading of alignment marks in the substrate in the wavelengths between 400 nanometers and 700 nanometers". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 13.

Dependent claims 14-20 depend from claim 13 and recite the things of claim 13. Thus, Applicant believes that claims 14-20 are not anticipated by Babich et al. for at least the reasons presented above regarding claim 13 and for the additional things recited in claims 14-20. Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 14-20.

§103 Rejection of the Claims

Claims 1-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Babich et al. in view of Veerasamy et al. (U.S. Patent No. 6,447,891) and You et al. (U.S. Patent No. 6,864,556).

Applicant respectfully traverses.

Independent claim 1 recites, among other things, "a substrate including at least one alignment mark" and "a masking structure formed over the device structure, the masking structure including an amorphous carbon layer, wherein the amorphous carbon layer is transparent in visible light range for improving a reading of the alignment mark in the visible

light range". Applicant is unable to find in Babich et al., Veerasamy et al., and You et al., either individual or in combination, "a substrate including at least one alignment mark" and "a masking structure formed over the device structure, the masking structure including an amorphous carbon layer, wherein the amorphous carbon layer is transparent in visible light range for improving a reading of the alignment mark in the visible light range". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 1.

Dependent claims 2-12 depend from claim 1 and recite the things of claim 1. Thus, Applicant believes that claims 2-12 are patentable over Babich et al., Veerasamy et al., and You et al., either individual or in combination, for at least the reasons presented above regarding claim 1 and for the additional things recited in claims 2-12. Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 2-12.

Independent claim 13 recites, "an amorphous carbon layer formed over a substrate, the substrate including at least one alignment mark, wherein the amorphous carbon layer is transparent to radiation having wavelengths between 400 nanometers and 700 nanometers for improving a reading of alignment marks in the substrate in the wavelengths between 400 nanometers and 700 nanometers". Applicant is unable to find in Babich et al., Veerasamy et al., and You et al., either individual or in combination, "an amorphous carbon layer formed over a substrate, the substrate including at least one alignment mark, wherein the amorphous carbon layer is transparent to radiation having wavelengths between 400 nanometers and 700 nanometers for improving a reading of alignment marks in the substrate in the wavelengths between 400 nanometers and 700 nanometers". Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claim 13.

Dependent claims 14-20 depend from claim 13 and recite the things of claim 13. Thus, Applicant believes that claims 14-20 are patentable over Babich et al., Veerasamy et al., and You et al., either individual or in combination, for at least the reasons presented above regarding claim 13 and for the additional things recited in claims 14-20. Accordingly, Applicant requests reconsideration and withdrawal of the rejection, and allowance of claims 14-20.

New Claims

Applicant believes that new claims 113-134 do not introduce new matter. Accordingly, Applicant requests consideration and allowance of claims 113-134.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 373-6969 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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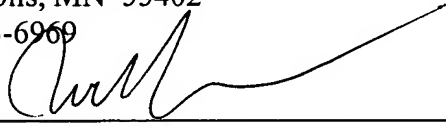
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Date 19 September 2005

By


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 19 day of September, 2005.

Tina Kluth
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